

EVALUATION OF APPLE VARIETIES UNDER INTENSIVE CULTIVATION FOR INDUSTRIALIZATION

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Scope. Maintaining apple orchards for the production of apples for industrialization involves a series of procedures to ensure tree health, fruit quality and an efficient harvest. Among the most important steps are the selection of apple varieties that are suitable for specific acidities and sugars, soil fertilization (fertilization, irrigation), training and pruning of trees, disease and pest control. The aim of this work is to identify highly productive varieties for industrialization and to adapt appropriate cultivation technologies that ensure the production of high quality apples adapted to the requirements of the industry.

Materials and methods. The research is carried out in the south-eastern fruit-growing area, at S.A. Ghermes Agroservice, s. Saiți, r. Causeni. Renet Simirenco, Granny Smith, Florina, Golden Delicious, Golden Delicious, Golden Resistant, Champion, Pinova, Mutsu, Granny Smith, Idared, grafted on M9 rootstock, planted at a distance of 4x1.2 m, which equals 2083 trees/ha. The orchard is supported and irrigated. The pruning of the trees is carried out according to the planned method, the flowers are thinned with urea, treated with less polluting substances and the plantation is managed to obtain fruit for processing.

Results and discussions. For apple industrialization, the studied varieties were analyzed according to their specific properties, such as strength, productivity and fruit quality. Renet Simirenco, has good processing resistance, uniform maturity, and distinctive aromatic qualities. Granny Smith has a tart taste and is highly prized for use in desserts, cider and juices. Golden Delicious is a popular variety with a sweet taste and crisp texture, used for juices and compotes. Florina, has firm, crisp flesh and a sweet-sour taste, very resistant to rapeseed and frost, adapted for intensive cultivation, it is suitable for juices and preserves. Golden Resistant, is resistant to some diseases, ideal for juices, cider and compotes due to its sweetness and juicy pulp, easy to process. Champion, resistant to rapeseed, suitable for processing. Pinova and Mutsu ideal for juices, compotes, and preserves due to its pleasant flavor and firm texture. Idared, used in juices, preserves and cider, due to its balanced flavor and firm texture.

Conclusions: All these varieties are suitable for the apple processing industry because of their firm flesh, pleasant taste and hardness. Varieties such as Granny Smith, Florina, Pinova and Idared are particularly appreciated for juicing and canning, while Mutsu and Golden Resistant are excellent for flavoring and cider.

Keywords: *M. domestica*, variety, industrialization.